

# Electrician

## What Do They Do?

Electricians plan, install and maintain the electrical wiring that supplies light, power, heat and communications in homes, factories and other buildings. The work of an electrician varies depending on where the electrician works. Some focus mainly on maintaining existing electrical systems, others focus mainly on wiring new construction. Electricians who specialize in residential work may rewire a home and replace an old fuse box with a new circuit breaker. Those who work in factories may repair motors, transformers, generators and electronic controllers on machine tools and industrial robots.

Electricians must read and follow blueprints to show the location of circuits, outlets and wiring equipment and test circuits to make sure they are installed properly and meet fire and safety codes.

Sometimes an Electrician's work is dangerous or strenuous. They may work both indoors and outdoors and have to stand, squat, stretch and climb on ladders and scaffolds. There is sometimes a risk of injury from electrical shock, falls and cuts. Electricians must follow strict safety procedures. They must also know local building codes as well as the National Electric Code. Electricians must also pass an exam to get a state license

## What Do I Have To Do To Be One?

Most people learn to be electricians by completing an apprenticeship program that lasts three to five years. They also learn their skills informally on the job. To help prepare for a career as an electrician, take math, electronics, mechanical drawing, science, and shop courses in high school. Any vocational training in electricity and electronics is also very helpful.

People who are Electricians like activities dealing with things or objects. They also like activities that bring satisfaction from producing things. To be an Electrician you must have good mechanical ability, you should be able to work within precise limits or standards of accuracy and perform mathematical operations quickly and accurately. You should also be good at problem solving and troubleshooting.

## How Much Do They Make?

Hourly wages for Electricians are among the highest in the building trades. Wages vary depending on the person's experience, responsibilities, skills and education, and on the type size and location of the employer.

Nationally, in mid 2004, basic hourly wage rates for Electricians employed in residential construction averaged about \$23.40, those working in industrial and commercial construction averaged about \$37.99 per hour. In several areas in Michigan, Electricians in construction earned hourly union rates, including fringe benefits, of (mid 2004) from \$33.37 to \$46.88. Most Electricians working for automotive firms earned between \$29.66 and \$30.15 per hour in mid 2004. Apprentices earn 40% of the skilled rate and receive a 5% increase for every 6 months of training. Overtime pay may be 1 1/2 or 2 times the hourly rate.

## What Can I Expect From The Job Market?

Nationally, about 599,200 Electricians were employed in 2002. Slightly more than half worked as maintenance electricians. About 7.7% of them were self-employed. Employment is expected to grow faster than the average for all occupations through the year 2012.

There are about 27,600 Electricians employed in Michigan. Most of them worked in urban areas. Employment is expected to grow faster than the average for all occupations through the year 2010. Construction activity requiring installation and maintenance of electrical wiring of light fixtures, outlets, and heating, air-conditioning, pollution control, and electronic data processing equipment will create a need for Electricians. There may also be substantial growth in manufacturing, where Electricians are being trained to maintain and repair automated equipment, such as assembly robots and automated vehicle guidance systems.

For more information on this career, click here: [Electrician Career Information](#)

## Factoid

Electricians are the people who wire homes, offices and factories for electricity. They work in both the construction and maintenance fields. They route and connect electrical wires, install lighting fixtures and other electrical devices, and install and maintain all the electronic controls used for machines at both home and work.

Most people learn to be electricians by completing an apprenticeship program that lasts three to five years. They also learn their skills informally on the job. To help prepare for a career as an electrician, take math, electronics, mechanical drawing, science, and shop courses in high school. Any vocational training in electricity and electronics is also very helpful.

Nationally, in mid 2004, basic hourly wage rates for Electricians employed in residential construction averaged about \$23.40, those working in industrial and commercial construction averaged about \$37.99 per hour.